



MSIAC M&S Newsletter

October 2005

The Modeling and Simulation Information Analysis Center (MSIAC) M&S Newsletter is now available as an automatic service.

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If you would like to submit an article to be highlighted in the *MSIAC M&S Newsletter*, please forward the article (along with its source data and URL, if available) to the MSIAC Help Desk no later than 15 workdays prior to the publication of the next Newsletter. Normally, the Newsletter is published on/about the first of each month. Potential articles as well as questions or comments on the Newsletter can be emailed to msiachelpdesk@msiac.dmsi.mil.

The MSIAC also publishes the quarterly *MSIAC Journal On-line*. If you would like to see the current issue of the *MSIAC Journal On-line* visit: <http://www.msiac.dmsi.mil/journal>. If you would like to submit an article for the Journal On-line, please email your paper or article to msiachelpdesk@msiac.dmsi.mil at least 45 days prior to the next publication date.

UPCOMING EVENTS

16-18 October 2005
[Modeling and Applied Simulation Workshop](#)
Bergeggi, Italy

18-20 October 2005
[Modeling and Simulation Staff Officer Course \(MSSOC\)](#)
Albuquerque, NM

18-20 October 2005
[Precision Strike Technology Symposium](#)
Norfolk, VA

19 October 2005
[NMSO VV&A Technical Working Group \(TWG22\)](#)
Patuxent River, MD

24-27 October 2005
[8th Annual Systems Engineering Conference](#)
San Diego, CA

25-27 October 2005
[The Huntsville Simulation Conference 2005](#)
Huntsville, AL

25-28 October 2005
[Science and Technology for Chem-Bio Information Systems](#)
Albuquerque, NM

26-27 October 2005
[Agent-Based Models Stability Ops Workshop](#)
McLean, VA

27-28 October 2005
[NATO Modeling and Simulation Group \(NMSG\) Workshop Exploiting Commercial Games for Military Use](#)
Stockholm, Sweden

31 October - 3 November 2005
[Aircraft Survivability 2005](#)
Monterey, CA

1-3 November 2005
[MSSOC](#)
Fort Eustis, VA

NMSO VV&A TECHNICAL WORKING GROUP (TWG22)

The purpose of the NMSO VV&A TWG is to provide all DOD M&S communities the opportunity to keep abreast of the latest VV&A policy, guidance, resources, and tools available and to discuss difficulties and areas of concern regarding program-specific VV&A efforts.

TWG22 will concentrate on DON M&S VV&A efforts and M&S Requirements, with the goal bringing greater awareness of standards, best practices, and areas of continuing concern.

For information on the next TWG22 Meeting on 19 October 2005 visit:

http://nmso.navy.mil/index.cfm?page_to_go=projects/vva/twg22/index.htm

U.S. JOINT FORCES COMMAND TO ASSUME MANAGEMENT OF JWARS SIMULATION

(SUFFOLK, Va. - Oct. 5, 2005) - U.S. Joint Forces Command (USJFCOM) will assume management of the Joint Warfare System (JWARS) simulation program this month, from the Program Analysis and Evaluation, Office of the Secretary of Defense (OSD (PA&E)).

Army Lt. Gen. Robert Wagner, USJFCOM acting commander, signed a memorandum of understanding to assume management of the JWARS simulation program earlier this month.

As preparation time for modern warfighting operations becomes increasingly condensed, the joint warfighting community is turning to faster than real-time simulation tools to analyze the results of battle campaigns quickly.

Command officials indicated that JWARS can simulate a whole-theater, 90-day campaign within a few hours and can do multiple runs simultaneously to capture statistical variations.

According to Tony Cerri, USJFCOM experimentation engineering lead, the JWARS simulation program enables combatant commanders to analyze the results of battle campaigns, courses-of-action, and command-and-control decisions, leading to risk reduction before deploying.

"It was designed to support and facilitate current and future Department of Defense decisions associated with force modernization, military transformation and warfare engagement, but what makes it so appealing is that it wasn't birthed as a service model, but born joint" said Cerri.

It already coordinates land, air, space or maritime maneuvers in a common battlespace and can simulate other critical aspects of modern combat, including: chemical weapons, coalition forces, satellites, missile defense, command, control, computers, communications (C4), intelligence, surveillance, and reconnaissance, and strategic and theater logistics and mobility, he said.

The simulation features command and control functionality to simulate human reactions in battlefield scenarios, and it can represent how friendly "blue forces" reacted with the adversarial "red forces."

For complete article visit:

<http://www.jfcom.mil/newslink/storyarchive/2005/pa100505.htm>

REAL -TIME REALISM

The military customer demands it all from the simulation visuals community: systems that are more realistic, faster, network-capable and cheaper. Any one of those demands is possible by itself; delivering the package is another matter.

But these tough demands aren't stopping industry from striving for the Holy Grail of the image generator (IG) and display world: an affordable virtual environment so real and immersive that training and mission rehearsal can be transferred from the aircraft, boat or tank to the simulator.

A few years ago, the IG industry was all about delivering bucket-loads more pixels to improve realism. The trick was to balance the dual demands of detailed graphics with real-time delivery. Any Hollywood studio or video-game maker can deliver gorgeous graphics, but a typical computer game offers only a highly detailed mini-world that quickly fades to blue shades of sky and then nothingness. The trainee pilot needs his virtual world to be extensive and delivered in real time, which puts a massive pull on computer power.

Serious simulators must deliver serious graphics. Outlining U.S. Air Force distributed mission operations (DMO) simulator visual needs at the IMAGE 2005 conference in Scottsdale, Ariz., in July, Simulator System Group Chief Engineer Scott Keen said: "It's where the rubber meets the road in simulation. It's that wow factor. We see needed performance enhancements that include greater realism, delivered better, faster and cheaper, and that are coordinated for team training."

For complete article from TSJ (Training and Simulation Journal) On-line, by Karen Walker, visit:
<http://www.tsjonline.com/story.php?F=982649>

SIMULATOR PLAYS THROUGH PLANE'S ON-BOARD SYSTEMS

Imagine combat pilots experiencing most of the rigors of aerial warfare as they remain safely parked in their warplanes on the ground. This is being achieved by an embedded training simulation system that was unveiled by Aermacchi and Selex Sensors at the 2005 Paris Air Show. The system so far is geared for Aermacchi M-346 and M-311 trainers.

It offers simulated flight scenarios through onboard multi-function and heads-up displays. The simulator, says a spokesman, is particularly geared for managing sensors and mission systems on combat aircraft, measuring pilot response to the surrounding real and virtual environments and virtually deploying weapons on the aircraft.

For original article edited by Robert H. Williams, NDIA's [National Defense Magazine](http://www.nationaldefensemagazine.org/issues/2005/Sep/TT-Simulator.htm) September 2005, visit:
<http://www.nationaldefensemagazine.org/issues/2005/Sep/TT-Simulator.htm>

NATO RESEARCH AND TECHNOLOGY ORGANISATION LECTURE SERIES ON "INTEGRATION OF MODELLING AND SIMULATION"

Modelling and Simulation (M&S) as used in a military context bridges Defence technological capabilities with training and readiness requirements. These lectures are designed to address what M&S is, why it is important and how it is used. Designed for both novice and initiate, these lectures articulate the role M&S plays in addressing the topical defence issues common throughout the alliance.

The two-day Lecture Series begins by assimilating the more novice attendees into how M&S is defined and applied within the defence community. Although M&S predates the technological revolution as a niche in military tabletop 'gaming', it has since graduated as a representation of the many human and organisational dilemmas that are commonplace.

The technological orientation of this Lecture Series builds upon this construct with the intent to expose professionals to many of these capabilities as well as some of the issues that correlate to them. The M&S field bridges not only models and staff training but how distributed and federated systems attempt interaction with communicative interfaces such as C4ISR and network architectures not to mention the potential of using applications in the fields of education and training, experimentation and acquisition.

The operational orientation of this Lecture Series places the attendee in the exercise and mission rehearsal scenario design process. Having a robust M&S presence technologically serves little purpose if the structure is chronologically or qualitatively flawed. Additionally, it is important to anticipate ahead of time what performance measures are observed, analyzed and evaluated in order to realize the culmination

of the command's desired goals. For information on where the Lecture Series will be taking place visit:

<http://www.rta.nato.int/Meetings.asp>

SUBMARINERS LEARN ANTI-TERRORISM TACTICS

Navy submarine crews are using video games to practice anti-terrorism tactics designed to secure their boats while in port. The technology, called the Force Protection Anti-Terrorism Simulation Trainer, includes scenarios for defending the inside of the submarine, on the assumption that intruders have climbed on board.

Other scenarios are less dramatic, such as discovering a mysterious package. "You notice a box that wasn't here when you started the watch, and it looks suspicious," explained Frank Boosman, chief marketing officer for 3Dsolve, in Cary, N.C. The company developed the simulation.

As part of a project known as "submarine on-board training program," the Navy will begin distributing the simulation in the first quarter of 2006. It will replace an existing video-based trainer that used branching video clips to teach in-port security. "They came up with videos that would last typically 20 to 60 seconds," Boosman said. "You would have three choices, and each of those choices would lead to another video. Only one of them would be correct, and if you didn't get it right, you would get remedial training."

That trainer worked, but it had inherent limitations, said Boosman. Video-based trainers are inflexible, he said. "Once the video has been shot, it's shot. If port security doctrine changes, you can't go back and change the video easily."

The 3Dsolve simulation will use the 17 scenarios from the video trainer, as well as five additional scenarios that will take place aboard the submarine.

For complete article by Michael Peck, NDIAs [National Defense Magazine](http://www.nationaldefensemagazine.org/issues/2005/Sep/UF-Submariners.htm) September 2005, visit:

<http://www.nationaldefensemagazine.org/issues/2005/Sep/UF-Submariners.htm>

U.S. ARMY AWARDS A \$25,000 GRANT TO THE UNIVERSITY OF CENTRAL FLORIDA

(ORLANDO, Fl. September 14, 2005) - The U.S. Army Research Development and Engineering Command, Sergeant First Class Paul Ray Smith Simulation & Training Technology Center (STTC) awarded a \$25,000 grant to the University of Central Florida (UCF) for graduate work in simulation. This amount matches a grant issued by AT&T.

At a ceremony at the simulation center, Congressman Tom Feeney (FL-24) expressed how the grant allows UCF's Institute for Simulation and Training (IST) to develop cutting-edge programs placing Central Florida at the forefront of modeling and simulation research. Contributions made from the U.S. Army will help augment the next generation of research scientists.

The awards will fund research in live simulation and will be performed at the STTC located in Research Park, a UCF partnership facility. The STTC will provide laboratory space for the two UCF grant recipients. They will work under the guidance of IST, the U.S. Army PEO STRI's Project Manager for Training Devices (PM TRADE), the STTC and AT&T. The students' research and application of the results will ultimately support the training of U.S. and Allied Warfighters.

COL James Ralph, III, of PM TRADE said "Live training is the last step before a Soldier enters into combat. This research will provide students the opportunity to make a contribution towards improving readiness and saving Soldier's lives." The \$50,000 donation will help strengthen the relationship between government, industry and UCF. "This grant money is very well spent." added COL Ralph.

ALBANIAN AND SLOVAKIAN OFFICERS VISIT WARRIOR PREPARATION CENTER

(RAMSTEIN AIR BASE, Germany (AFPN) - Nine Albanian and Slovakian officers visited the Warrior Preparation Center here Sept. 20 to 23.

The officers viewed hands-on tactics through high-tech training demonstrations at the facility, which is jointly owned by U.S. Army, Europe and U.S. Air Forces in Europe. Although they were there to gain more understanding of U.S. military training tactics, the visit was more than simulations and demonstrations.

"This type of visit fosters a common understanding of conducting exercises and simulations," said Col. Jerry Gandy, Warrior Preparation Center commander. "Our hope is that, with familiarization visits such as this, we can work together in any future exercise but, more importantly, in any real-world operation."

The visit was part of the Theater Security Cooperation program, a collaborative effort between the U.S. military and its allies to counter terrorism, promote regional stability and advance U.S. interests.

For complete article visit:

<http://www.af.mil/news/story.asp?storyID=123011943>

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